Amendments To The Claims:

Please amend the claims as shown.

1 – 12 (canceled)

13. (new) A turbine shaft oriented in an axial direction, comprising:
a first flow region;
a second flow region that adjoins the first flow region in an axial direction;
a first material in the first flow region; and
a second material in the second flow region,
wherein the first material comprises a heat-resistant steel and
the second material comprises a steel which is tough at low temperatures.

14. (new) The turbine shaft as claimed in claim 13, wherein the first material comprises a 2 CrMoNiWV steel and the second material comprises a 3.5 NiCrMoV steel.

15. (new) The turbine shaft as claimed in claim 13, wherein the first material includes 0.20 - 0.24% by weight of C, ≤ 0.20% by weight of Si, 0.60 - 0.80% by weight of Mn, ≤ 0.010% by weight of P, ≤ 0.007% by weight of S, 2.05 - 2.20% by weight of Cr, 0.80 - 0.90% by weight of Mo, 0.70 - 0.80% by weight of Ni, 0.25 - 0.35% by weight of V and 0.60 - 0.70% by weight of W and the second material includes 0.22 - 0.32% by weight of C, ≤ 0.15% by weight of Si, 0.15 to 0.40% by weight of Mn, ≤ 0.010% by weight of P, ≤ 0.007% by weight of S, 1.20 - 1.80% by weight of Cr, 0.25 - 0.45% by weight of Mo, 3.40 - 4.00% by weight of Ni, 0.05 - 0.15% by weight of V.

16. (new) The turbine shaft as claimed in claim 13, wherein a structural weld seam (4) is arranged between the first material and the second material.

17. (new) The turbine shaft as claimed in claim 13, wherein the structural weld seam includes a weld filler.

18. (new) The turbine shaft as claimed in claim 17, wherein the weld filler includes 2% by weight of nickel.

19. (new) A process for producing a turbine shaft, comprising:
orienting a first material and a second material in an axial direction; and
directly joining the first and second materials to one another by a structural weld.

20. (new) The process as claimed in claim 19, wherein a 2 CrMoNiWV steel is used for the first material and a 3.5 NiCrMoV steel is used for the second material.

21. (new) The process as claimed in claim 19, wherein 0.20 - 0.24% by weight of C, ≤ 0.20% by weight of Si, 0.60 - 0.80% by weight of Mn, ≤ 0.010% by weight of P, ≤ 0.007% by weight of S, 2.05 - 2.20% by weight of Cr, 0.80 - 0.90% by weight of Mo, 0.70 - 0.80% by weight of Ni, 0.25 - 0.35% by weight of V and 0.60 - 0.70% by weight of W is used for the first material, and 0.22 - 0.32% by weight of C, ≤ 0.15% by weight of Si, 0.15 - 0.40% by weight of Mn, ≤ 0.010% by weight of P, ≤ 0.007% by weight of S, 1.20 - 1.80% by weight of Cr, 0.25 - 0.45% by weight of Mo, 3.40 - 4.00% by weight of Ni, 0.05 - 0.15% by weight of V is used for the second material.

22. (new) The process as claimed in claim 19, wherein a weld filler is fed to the structural weld.

23. (new) The process as claimed in claim 22, wherein the weld filler used is a material that includes 2% by weight of nickel.

24. (new) The process as claimed in claim 19, wherein the process is used to produce a rotor for use in a steam turbine.